



# Transportation Demand Management Primer

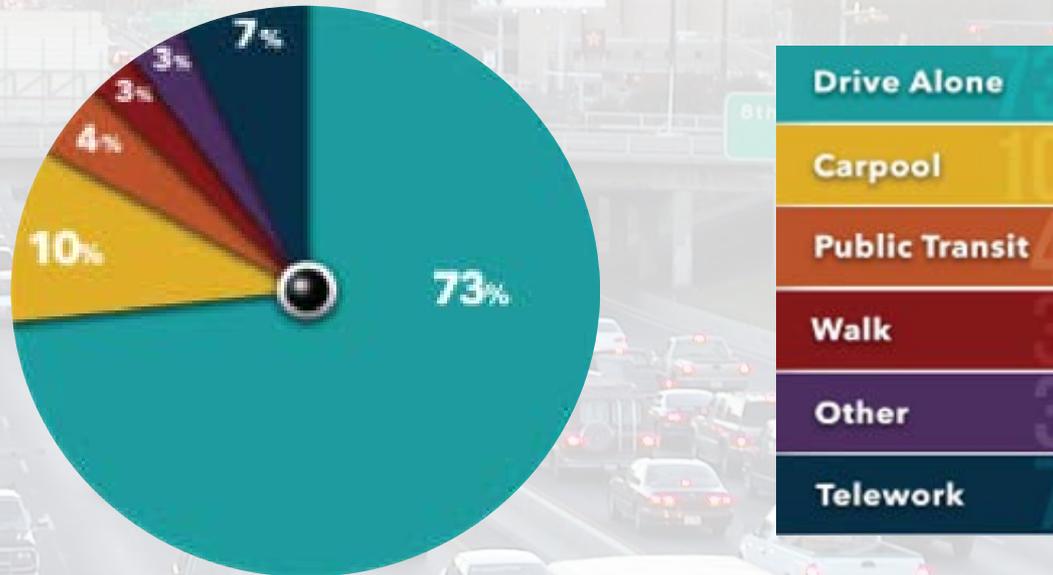
Tien-Tien Chan, AICP  
Austin Transportation Department



Pedestrian Advisory Council: June 5, 2017

# Commute Mode-Split

Austin, Texas 2014



An aerial photograph of a busy multi-lane highway in Austin, Texas, during peak hour. The road is filled with cars, including a white box truck and a red semi-truck. In the background, there are several city buildings, including a prominent one with a star on its facade. A green highway sign above the road indicates '5th + 3rd Sts' with an arrow pointing right. A semi-transparent white box is overlaid on the center of the image, containing text.

***“The least expensive option available to us is to do those things that will take people out of road during peak hour times.”***

- Mayor Adler, Austin on the Move News Conference, January 28, 2016





***“TDM is the fastest way to realize congestion relief. TDM programs are a significantly cheaper investment than capital expenditures, like highway widening programs or new parking garages, which have been relied on in the past to expand capacity.”***

–Jeffrey Tumlin, Nelson/Nygaard, International Transportation Expert



# What is TDM?



EUROPE WELCOMES AUSTIN

EUROPE WELCOMES AUSTIN

BIKE LANE

NO PARKING

TDM = using cost-effective strategies to:

- reduce driving alone trips
- increase active trips (public transit, carpool, vanpool, walking, biking)
- shift driving trips away from the most congested time periods





**Improve  
Options**

**Land Use**

**Incentives**

**Parking  
Mgmt**

**Policy**

**Education**

A photograph of a suburban street scene. In the foreground, a man in a green shirt and helmet is riding a bicycle towards the camera. To his right, a woman is pushing a pink stroller with a child inside. Further right, a woman in a blue outfit is walking away from the camera on a sidewalk, carrying a bag. The street has a white line marking and a yellow arrow. In the background, there are cars parked along the side of the road, trees, and a house. A semi-transparent white box with black text is centered over the image.

**Why is TDM such a large piece of the solution?**

# Typical New Construction Costs

Infrastructure	Cost per Mile
Sidewalk (5' wide)	\$150K
Multi-Use Trail (along roadway)	\$320K
Off Road Trail – Improved (S. Walnut Creek)	\$1.2M
Residential Street (new subdivision w/ utilities)	\$1.0 – \$3.0M
Collector Street (2 Lane divided)	\$8.5M
Arterial – 4 Lane	\$11.9M
Add a Lane – Rural Hwy	\$1.6M - \$3.1M
Add a Lane – Urban Hwy	\$2.4M - \$6.9M
Add a Lane – Rural Sensitive	\$5.8M - \$9.9M
Add a Lane Urban Sensitive	\$7.3M to \$15.4 M
New Rural 4-Lane Highway	\$20M - \$40M
New Urban 4-Lane Highway	\$20M - \$300M
Urban Interchange	\$35M

# Estimated TDM Effectiveness



MARKETING/EDUCATION  
1% - 5%\*



TRANSIT SUBSIDIES  
3% - 10%\*



RIDE SHARING  
1% - 15%\*



TELECOMMUTING  
1% - 5%\*



COMMUTE ORDINANCES  
5% - 15%\*



CAR SHARING  
1% - 2%\*



WORKPLACE PARKING PRICING  
2% - 7%\*



VAN POOLS/SHUTTLES  
1% - 13%\*

# What are the existing and emerging TDM programs?



EUROPE WELCOMES AUSTIN



# Improve Options

Bicycle and Pedestrian Connections

Transit Improvements - Connections 2025

Ride Sharing

CapMetro Vanpool

CommuterSolutions.com

Chariot



Refine Matches:

Include:

Sort By: Best Match

Filter Distance From:

0 Mi  6 Mi  Enable  
Origin

0 Mi  6 Mi  Enable  
Destination

**Jennifer** Schedule 100% match 2 [See details](#)

**Brittini** Schedule 75% match 3 [Hide details](#)

Brittini is...

- Willing to drive
- Willing to be a passenger
- Female
- Non-smoker
- Along your route

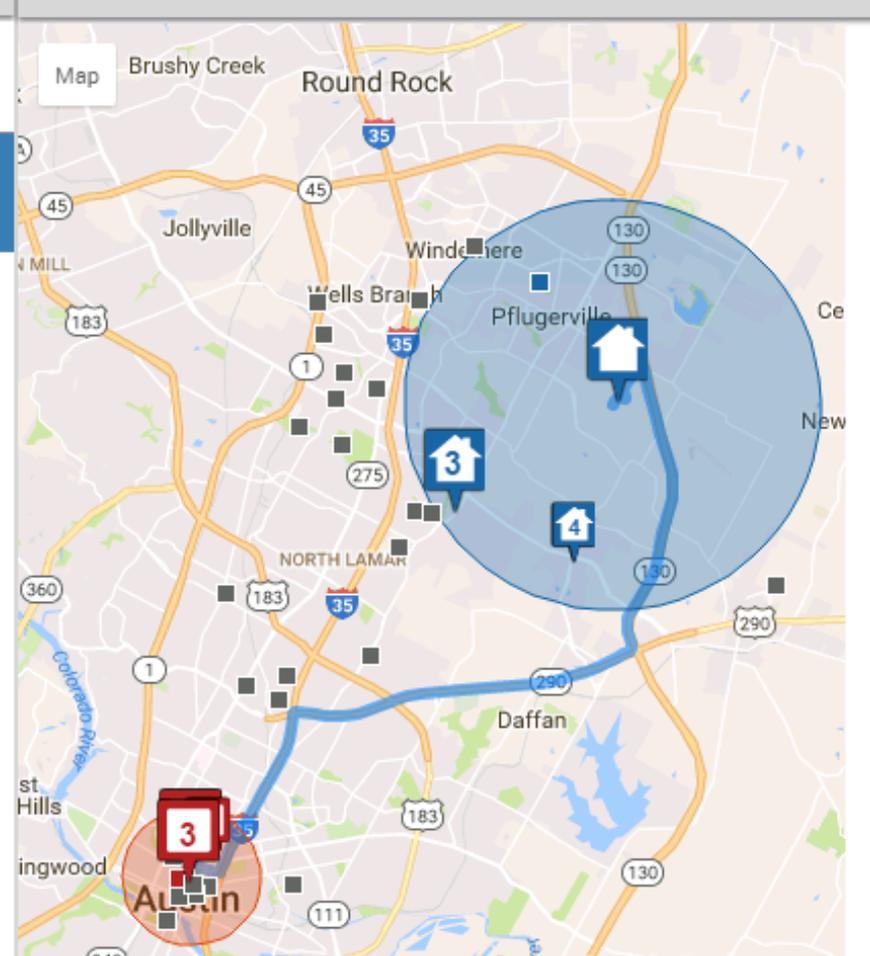
4 MI from your origin

0 MI from your destination

**Request Carpool**

Commute Schedule:

S	±	---		---	±
M	± 5min	8:00am	5:00pm	± 5min	
T	± 5min	8:00am	5:00pm	± 5min	
W	± 5min	8:00am	5:00pm	± 5min	
T	± 5min	8:00am	5:00pm	± 5min	
F	± 5min	8:00am	5:00pm	± 5min	
S	±	---		---	±



# Improve Options

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Transit Improvements - Connections 2025

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Search

Existing

Propose

▼ Where do you start your commute?

▲ Where do you end your commute?

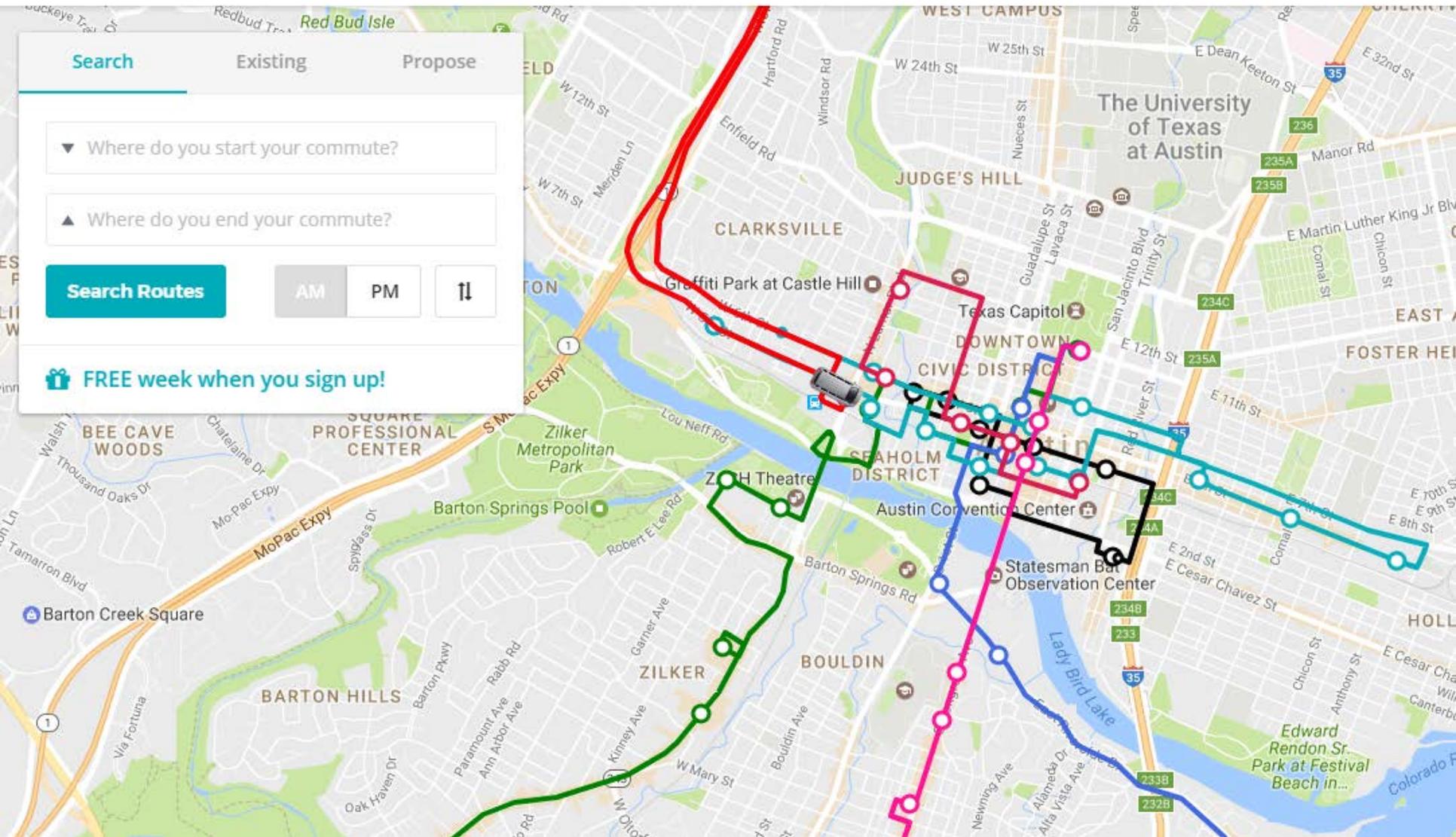
Search Routes

AM

PM

↕

🎁 FREE week when you sign up!



# **Parking Management**

**Downtown Austin Alliance Parking Study**

**Parking Enterprise**

**Metered Parking**

**Technology**

**CoA Parking Program**



RECOMMENDATION	ALIGNMENT WITH PARKING GOALS					
	Supportive	Multimodal	Available	Cost-Effective	User-Friendly	Adaptable
Design and implement a performance-based parking management program.	✓	✓	✓	✓	✓	✓
Pilot a shared parking program in which City manages private parking as "public" parking. Provide technical assistance to better facilitate shared parking.	✓		✓	✓	✓	
Expand and diversify existing Affordable Parking Program.	✓		✓	✓	✓	
Enhance pedestrian access to parking facilities.		✓	✓		✓	
Explore opportunities to expand and clarify on-street supply.			✓	✓	✓	
Fully invest and implement comprehensive parking signage and wayfinding system.	✓		✓	✓	✓	✓
Define an overall strategy that ensures technology tools support broader parking and mobility goals.	✓		✓	✓	✓	✓
Continue to reinvest parking revenues into downtown and evaluate allocation of additional revenue to multimodal improvements.	✓	✓				✓
Evaluate and implement a park-n-ride or circulator shuttle to improve transit connections and access to remote parking.		✓	✓	✓	✓	
Support comprehensive and coordinated improvements in employee-focused mobility services and programs.	✓	✓	✓	✓	✓	
Revise the zoning code to better support walkable, mixed-use development within the downtown.	✓		✓	✓		✓
Require provision and enforcement of a TDM program for all new downtown development above a certain size.	✓	✓	✓	✓		✓
Revise the zoning code to incentivize sharing of parking.	✓		✓	✓	✓	✓
Create dynamic inventory and adjust on-street regulations to maximize flexibility at the curb.			✓		✓	✓
Define and implement enforcement strategy to support performance-based management. Allocate sufficient resources to parking enforcement.	✓		✓	✓	✓	✓
Establish a formal collaboration between the City, State, and other parking stakeholders.	✓		✓	✓		✓
Enhance event management practices to maximize parking system flexibility and predictability.	✓			✓	✓	✓
Plan for the future to nimbly respond to long-term trends in mobility and parking.	✓	✓		✓	✓	✓
Strategically invest in public and shared parking supply in key locations.	✓				✓	

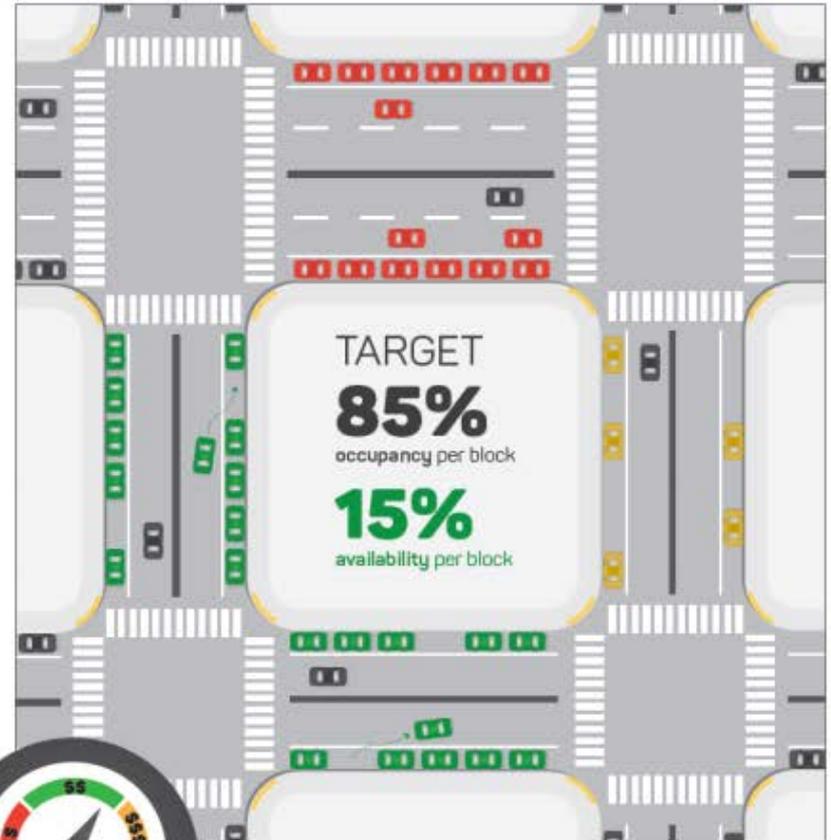
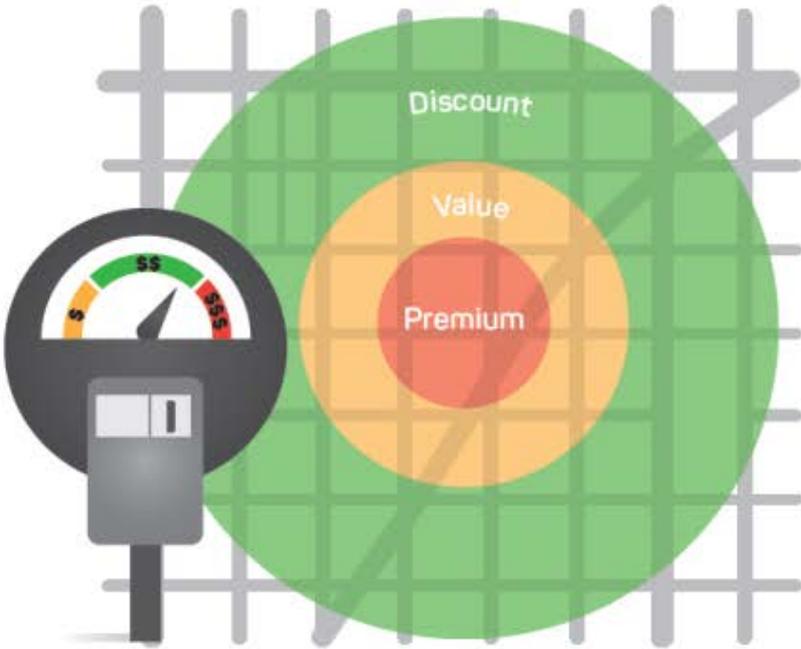
## KEEP IN MIND...

There is **no silver bullet.**

**No strategy on its own** will solve the parking problem.

This is a **toolkit and package** of recommendations that works towards the goals together.

# ADJUST PRICES OVER TIME TO MEET AVAILABILITY TARGET.



## PROGRESSIVE PARKING

If block/lot is too full, **increase the price**

If block/lot is too empty, **lower the price**

If block/lot is just right, **keep the same price**

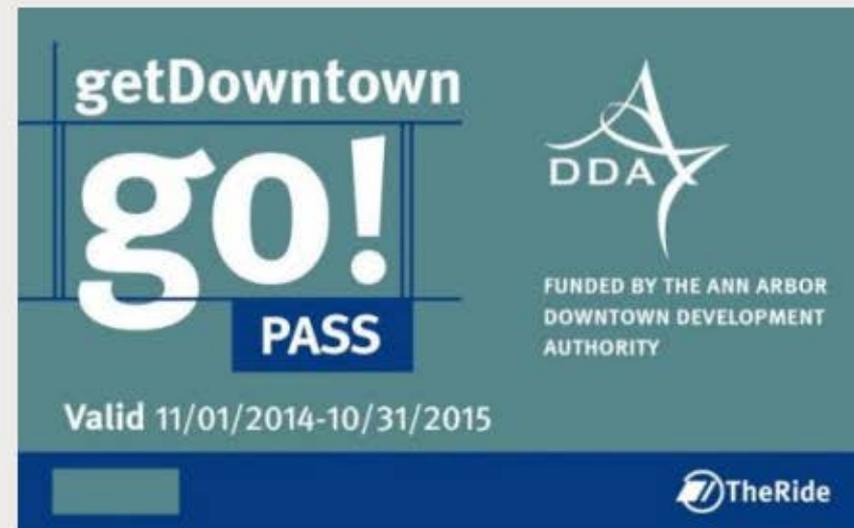
## #10. COORDINATED MOBILITY SERVICES FOR EMPLOYEES.

### ➤ **Summary:**

Significantly expand and diversify the employee mobility programs. Allocate parking revenues to TDM programs.

### ➤ **Benefits:**

- **Relieves pressure** on parking supplies.
- Less employee driving = **less congestion.**
- Augments employer-provided **benefits.**
- **Employee retention** and satisfaction.
- Accommodates growth and **changing transportation trends.**



**ANN ARBOR, MI – GO! PASS**

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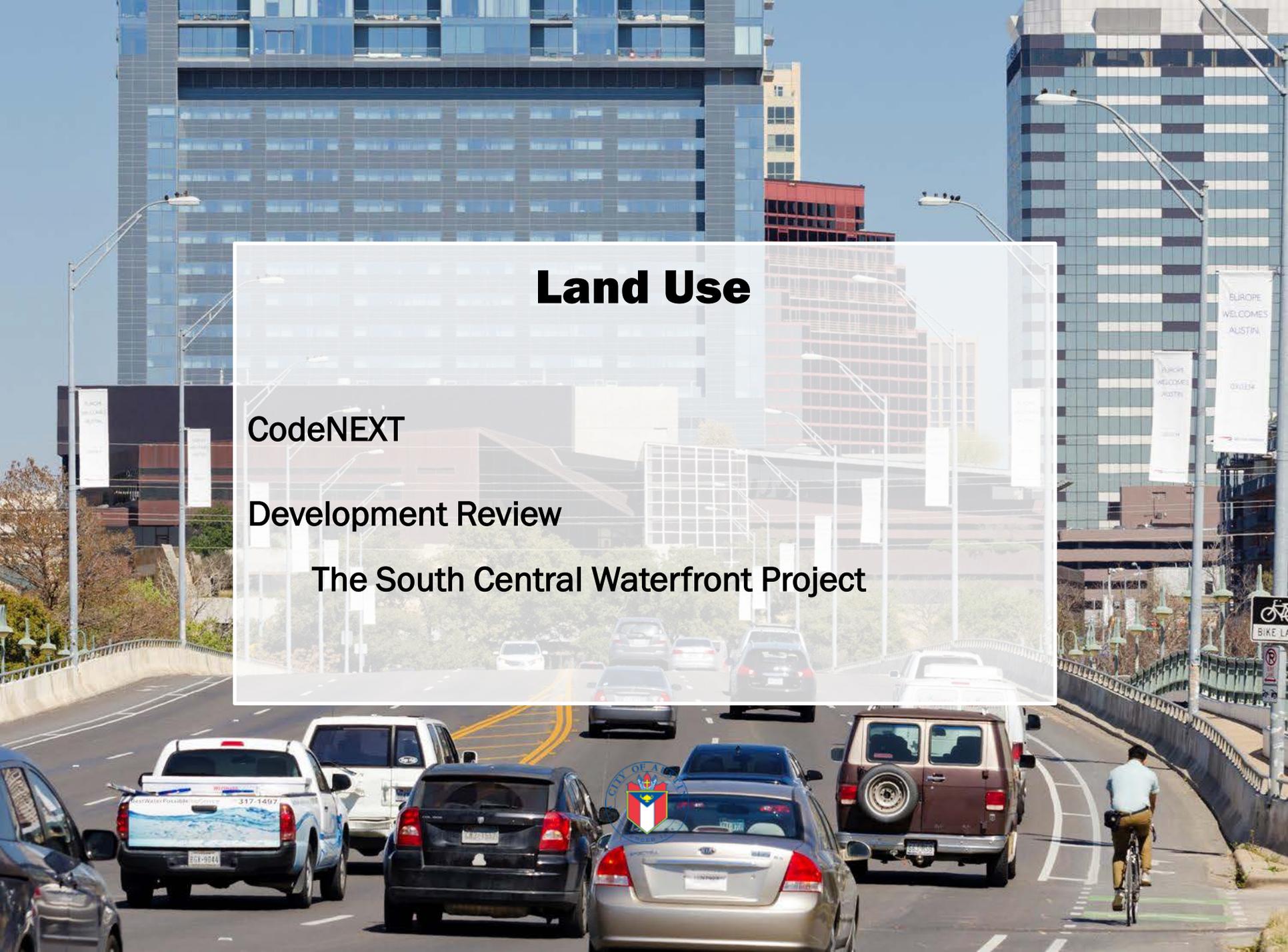
**Parking Enterprise**

**Metered Parking**

**Technology**

**City of Austin Parking Program**





# Land Use

CodeNEXT

Development Review

The South Central Waterfront Project





SOUTH CENTRAL Waterfront Districts

# Policy

CodeNEXT

Austin Strategic Mobility Plan



# Incentives

City of Austin Employee Commute Program

Mayor's Mobility Challenge



[CITY & COUNTY](#) | [COMMERCE](#) | [NEWS](#) | [TRANSPORTATION](#)

## How can Austin reduce its traffic congestion? Don't drive alone to work, officials say

Mayor, companies urge employees to use alternative commute options



By [Amy Denney](#) | Posted Oct. 25, 2016 at 11:05 am

# Education

Movability Austin

Smart Trips Austin







A U S T I N

**What will the future of TDM look like in our region?**



**Thank you!**

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